In the Claims

1.-34.   (cancelled)

35.   (new) A video imaging system, comprising:

a camera for generating image data, said camera including:

a storage device positioned on said camera; and

a processor program stored on said storage device;

a device program stored on said storage device;

a camera control unit coupled to said camera and receiving said image data,

said camera control unit including:

a processor; and

at least one configurable hardware device;

said processor receiving said processor program for programming of said

processor;

said processor receiving said device program for programming of said at least

one configurable hardware device;

said configurable hardware device processing said image data received from

said camera.

36.   (new) The video imaging system according to Claim 35 wherein said at least

one configurable hardware device is selected from the group consisting of: field

programmable gate arrays, and computer programmable logic devices; and said

processor is selected from the group consisting of digital signal processors,

microprocessors and microcontrollers.

37.   (new) The system according to Claim 35 further comprising software executing

on said camera control unit for determining when said camera is in communication with

said camera control unit.

38.   (new) The video imaging system according to Claim 35 further comprising a

pre-existing device program located on said configurable hardware device for

processing the image data.

39.   (new) The video imaging system according to Claim 38 wherein said device

program executing on said processor overwrites said pre-existing device program.

40.   (new) The video imaging system according to Claim 35 further comprising a

pre-existing processor program located on said processor for controlling the

configurable hardware device.

41.   (new) The video imaging system according to Claim 40 wherein said processor

program executing on said processor overwrites said pre-existing processor program.

42.   (new) The video imaging system according to Claim 35 wherein said device

program enables said camera control unit to issue a command to said camera to

adjust and operating characteristic of the camera.

43.   (new) The video imaging system according to Claim 42 wherein said camera

sends confirmation to said camera control unit that the command was received.

44.   (new) The video imaging system according to Claim 35 further including a

second storage device and image data is stored on said second storage device.

45.   (new) The video imaging system according to Claim 44 wherein the image data

stored on said second storage device is processed image data.

46.   (new) The video imaging system according to Claim 35 wherein said at least one

configurable hardware device and said processor are physically separate devices.

47.   (new) A method for processing image data comprising the steps of:

coupling a camera to a camera control unit;

detecting the connection of the camera to the camera control unit;

accessing a processor program stored in the camera;

receiving the processor program with a processor;

programming the processor based on the processor program;

accessing a device program;

receiving the device program with the processor;

programming a configurable hardware device based on the device program; and

processing image data generated by the camera and transmitted to the camera

control unit.

48.   (new) The method according to Claim 47 wherein the step of configuring the

configurable hardware device further includes overwriting a pre-existing device

program on the configurable hardware device.

49.   (new) The method according to Claim 47 wherein the step of programming the

processor further includes overwriting a pre-existing processor program on the

processor.

50.   (new) The method according to Claim 47 further comprising the step of issuing

a command to the camera from the camera control unit for adjusting an operating

characteristic of the camera.

51.   (new) The method according to Claim 50 further comprising the step of

sending a confirmation to the camera control unit that the command was received by

the camera.

52.   (new) The method according to Claim 47 further comprising the step of storing

the image data on a second storage device.

53.   (new) The method according to Claim 52 wherein the image data stored on said

second storage device is processed image data.

54.   (new) A video imaging system, comprising:

       a camera generating image data and having a storage device positioned

thereon with a processor program stored on the storage device;

       a camera control unit coupled to said camera and receiving the image data,

said camera control unit having a processor and at least one configurable hardware

device;

       said processor receiving said processor program from said storage device on

said camera for programming of said processor;

       said processor receiving a device program for programming of said at least one

configurable hardware device;

       said configurable hardware device processing said image data received from

said camera.

55.   (new) The video imaging system according to Claim 54 wherein said device

program is stored on said storage device.

56.   (new) The video imaging system according to Claim 54 wherein said device

program configures said at least one configurable hardware device to interface with said

camera for timing and control of said camera.

57.   (new) The video imaging system according to Claim 54 wherein a plurality of

cameras, each having differing camera characteristics, are attachable to said camera

control unit such that said camera control unit is configured for and interfaces with the

specific attached camera.

58.   (new) The video imaging system according to Claim 54 wherein said at least one

configurable hardware device and said processor are physically separate devices.